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ABSTRACT

This teaching guide accompanies the Life Expectancy at Birth poster kit, which presents statistics on life expectancy from 128 countries with populations of more than one million. The statistics relate to economic development and the changes it is bringing about in the world. Sometimes called indicators, the statistics are measures of social and economic conditions in industrial and in developing countries. The guide is intended for use with: (1) a set of six full-color pictures of people in developing countries involved in activities that will help improve the quality of their lives; and (2) a full-color poster map of the world showing related life expectancy indicators. The basic concepts covered by the materials postulate that: (1) life expectancy is generally higher in industrial countries than in developing countries; (2) there is a higher rate of infant and child mortality in developing nations; (3) as living conditions improve, those mortality rates decline; and (4) progress in improving living conditions and lowering these mortality rates varies widely throughout the developing areas of the world. As a result of using this poster kit, students should be able to read and interpret data, analyze and synthesize information on these topic areas, and develop an understanding of the relationships involved in development, mortality rates, and life expectancy. Vocabulary exercises, photograph exercises, and data table exercises are included in the guide. An achievement test with multiple choice, vocabulary matching, and essay questions is also included and may be used to evaluate students' understanding of the concepts developed in the kit. (PPB)

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MEASURES OF PROGRESS

TEACHING GUIDE

Life Expectancy at Birth

Poster Kit Number 1

U.S. DEPARTMENT OF EDUCATION
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About the Poster Kit

This teaching guide accompanies the Life Expectancy at Birth poster kit, which is the first in a series of poster kits entitled *Measures of Progress*. The series studies economic and social development in developing countries and is published by the World Bank.

Each poster kit contains:

- a full-color poster map of the world showing a particular social or economic indicator
- six full-color pictures of people in developing countries involved in activities that will help improve the quality of their lives
- a teaching guide with activities and test.

Statistics for this poster kit were supplied by the World Bank's Economic Analysis and Projections Department. The poster map was prepared by the World Bank's Cartography Division. The judgments expressed here do not necessarily reflect the views of the World Bank's Board of Executive Directors or of the governments that they represent. The colors, boundaries, denominations, and classifications on maps do not imply, on the part of the World Bank and its affiliates, any judgment on the legal or other status of any territory, or any endorsement or acceptance of any boundary.

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The World Bank is an international institution owned by 151 countries. Its work is to help its developing member countries improve the living conditions of their people. It does this by lending them money for development projects and providing various kinds of technical assistance. Its loans have longer repayment periods than commercial bank loans. The International Development Association, which is part of the World Bank, makes interest free loans for even longer periods to the Bank's poorest member countries. The World Bank began to operate in 1946; the International Development Association was founded in 1960. Their loans to the developing countries now amount to about $16 billion a year.

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Introduction

Life expectancy at birth is the average number of years newborn babies can be expected to live if health conditions remain the same. It is an important social indicator because it reflects the health of a country's people and the quality of care they receive when they are sick.

This poster kit presents statistics on life expectancy from 128 countries with populations of more than 1 million. The statistics relate to economic development and the changes it is bringing about in the world. Sometimes called indicators, the statistics are measures of social and economic conditions in the industrial and the developing countries.

There is now wide agreement that economic development should be measured not only by improvements in indicators such as per capita income but also by indicators of the quality of life, such as life expectancy.

The goal of economic development is to raise standards of living in the developing countries, so that people there can live better, fuller lives. In the past three decades, the developing countries have made considerable progress, but much remains to be done.

Many factors contribute to economic development, including the abundance of a country's resources, its ability to invest them wisely, and its access to other resources through the increasingly integrated global economy. Another critical factor is the understanding that people everywhere have about how economic development occurs and about how living conditions differ in the industrial and the developing countries. This poster kit is designed to promote that understanding. With its teaching guide, the kit is a teaching program for secondary schools.

Basic concepts

The poster kit is designed to teach the following basic concepts.

- Life expectancy at birth is higher in the industrial countries than in all but a few developing countries (for example, China, Costa Rica, and Sri Lanka).
- Infants and children account for many more of the deaths in developing countries than in industrial countries. Children under five years of age are at particular risk. Infant and child mortality rates are 10 times higher in developing countries than in industrial countries. The mortality rate for mothers during or just after childbirth is 100 times higher.
- The percentage of infants surviving the first year of life has increased in all countries since 1960, with the greatest increase in the poorest countries. This increase correlates with improved water supply, sanitation, hygiene, health care, education, nutrition, and level of income.
- The most progress has been made in Latin America, followed by Asia and the Middle East. The least progress has been made in Sub-Saharan Africa.

Point of view

The poster kit has the following point of view.

- Economic development in developing countries is a means to a better life for three-quarters of the world's people.
- Greater economic strength and higher standards of living in the developing countries contribute to a healthy, vigorous world economy.
- The increased interdependence among countries that accompanies economic development is in the best interests of all countries.

Teaching goals and objectives

As a result of using this poster kit, students should be able to:

- read and interpret data about life expectancy at birth on maps, graphs, and charts
- identify and locate on a map countries and areas of the world with varying life expectancies
- explain the relationship between life expectancy and infant mortality
- explain some of the factors that increase life expectancy and reduce infant mortality in developing and industrial countries
- describe and explain changes in life expectancy at birth since 1960.

A test to measure the achievement of these goals and objectives is on pages 12–13 of this teaching guide.

Technical notes

Data and maps. Because the World Bank is continuously updating its data, some of the figures in this kit differ from those shown in other World Bank documents. Maps are based on the Eckert IV equal-area projection, which maintains correct areas for all countries, though at the cost of some distortion in shape, distance, and direction; maps display data for all countries for which data are available.

Country groups. The World Bank groups countries by regions and by economic characteristics. Countries

are grouped in both ways in this kit. The classifications by economic characteristics are as follows:

- Industrial countries—19 countries in Asia, Europe, and North America.
- Developing countries—96 countries that fall into two subgroups: *low-income* developing countries, where most people are very poor and many are unable to meet their basic needs; and *middle-income* developing countries, where the standard of living is higher but many people are still too poor to meet their basic needs.
- East European countries—8 countries (Albania, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and the USSR) that are not grouped with the developing or the industrial countries because of differences in their economic organization and because income data for most of them are not comparable with data from other countries.
- High-income oil exporting countries—5 countries (Kuwait, Libya, Oman, Saudi Arabia, and the United Arab Emirates) that are not grouped with the industrial or developing countries because their income levels would place them with the industrial countries but their economic structure with the developing countries.

The classifications by geographic region are shown in the Data Table on page 11. That table organizes countries into six regions: North and Central America, South America, Europe, Sub-Saharan Africa, and Asia and the Pacific.

A word about statistics

Statistics can be powerful tools for understanding economic development, but they have limitations. Some statistics are based on counting, others are estimates, and many are derived from other statistics. They are more accurate for some countries than others. And because it takes a long time to collect and verify some statistics, they may be out of date soon after they are published. The statistics in this poster kit are the most recent ones available at the time of publication.

Many aspects of economic development cannot be measured by statistics. Examples are the attitudes and feelings of people, their values and ideas, their social and political systems, and their history and culture. So, while statistics can tell much about economic development, there is much they do not tell. This kit thus tells only part of the story of economic development, but it is an important part.

1. Vocabulary Exercises

1.a Defining terms

cholera—an acute infectious disease commonly caused by unclean water and characterized by severe diarrhea; seldom seen in industrial countries.

developing country—a country where most people have a low standard of living with few goods and services. There are more than 100 developing countries; their total population is about 3.5 billion. Developing countries are also known as industrializing countries, less developed countries (LDCs), poor countries, the South, and the Third World.

diphtheria—an acute infectious disease that affects the heart and nervous system.

economic growth—the process by which a country increases its ability to produce goods and services.

family planning—a health service that offers counseling and other measures to couples to help them decide whether they want to have children and, if so, when and how many.

food supplementation—a health service that provides people who are undernourished—especially poor women and children—with nutritious foods, vitamins, and minerals in addition to what they may get in their own food.

growth monitoring—a way to detect undernourishment by weighing infants and children each month and then comparing the weights to the normal ranges on a growth chart.

hygiene—practices that help ensure cleanliness and good health; for example, frequent hand washing.

immunization—the medical procedure that increases a person's resistance to diseases such as measles, smallpox, whooping cough, diphtheria, and tetanus.

industrial country—a country where most people have a high standard of living with many goods and services. There are 19 industrial countries in the West; their total population is about 1.5 billion. They are also known as developed countries, the North, or the First World.

infant mortality rate—the number of infants who die before reaching their first birthday; for example, in 1984 in Ethiopia 172 out of every 1,000 infants died before age 1, while in the United States 11 out of every 1,000 infants died.

life expectancy at birth—the average number of years newborn babies can be expected to live if health conditions stay the same; for example, in 1984 newborn American babies were expected to live 76 years, while those in Nepal were expected to live 47 years.

low-income developing country—a country that is among the "poorest of the poor," where many people cannot meet their basic needs. Almost 2.5 billion people live in such countries.

malaria—a disease transmitted by the anopheline mosquito and characterized by chills and fever; accounts for 1 million deaths a year in Africa.

measles—an acute, highly contagious disease marked by red spots on the skin; may be life-threatening if the infected person does not get proper nutrition and care.

middle-income developing country—a country with a slightly higher standard of living than a low-income developing country, but where many people still cannot meet their basic needs. About 1 billion people live in such countries.

nutrition education—the process of learning to eat foods that promote physical growth and good health.

postnatal care—health care for a mother and her newborn child; includes growth monitoring, food supplementation, nutrition education, and immunization.

prenatal care—health care for a pregnant woman and her unborn child; includes growth monitoring, food supplementation, and nutrition education.

primary health care—health services, including family planning, clean water supply, sanitation, immunization, and nutrition education, that are designed to be affordable by the poor people who receive the services and the governments that provide them; focus is on preventing disease as opposed to curing it.

sanitation—maintaining clean, hygienic conditions that help prevent disease, through services such as garbage collection and wastewater disposal.

social indicators—statistics that measure social conditions in industrial and developing countries.

social services—services generally provided by the government that help improve people's standard of living; for example, public hospitals and clinics, good roads, clean water supply, garbage collection, electricity, and telephone lines.

tetanus—an acute infectious disease associated with body injuries, especially deep puncture wounds.

tuberculosis—a communicable disease that affects mainly the lungs.

typhoid fever—an acute infectious disease transmitted by contaminated water, milk, and food; occurs especially in urban areas and is characterized by fever, red spots, diarrhea, and complete exhaustion.

undernourishment—a condition that occurs when a person does not get enough of the right foods to eat.

wastewater—water that has been used and is no longer clean.

whooping cough (or pertussis)—a highly contagious disease marked by convulsive coughing; it affects mainly children and may lead to many complications.

1.b Matching definitions

Match the following terms with the phrases below. Note that there is one more vocabulary term than needed.

diphtheria
food supplementation
growth monitoring
industrial country
infant mortality rate
low-income developing country
measles
middle-income developing country
nutrition education
primary health care
sanitation
tetanus
whooping cough (or pertussis)

1. A country, such as Australia, Canada, France, Japan, or the United States, where people have a high standard of living and access to many goods and services. _____

2. A country among the "poorest of the poor," with a very low gross national product and with many people unable to meet basic needs. _____

3. A country that is poor but has a higher gross national product and a better standard of living than other poor countries. _____

4. A way to detect undernourishment by weighing infants and children each month. _____

5. A highly contagious viral infection characterized by red spots on the skin, which may be life-threatening if the victim does not receive proper nutrition and care. _____

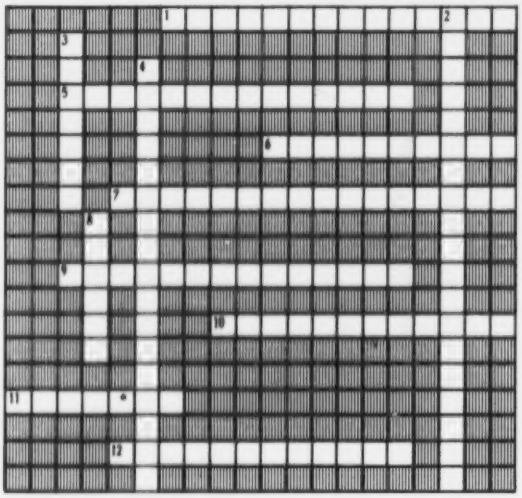
6. This statistic is high in a country where 100 babies out of every 1,000 live births die before their first birthday. _____

7. Learning to eat foods that are good for you. _____

8. In the United States, babies in their first year of life receive a series of DPT innoculations to protect them from these three diseases. _____

9. Maintaining clean conditions by having adequate garbage collection, wastewater disposal, and other services. _____

10. This program helps people get additional food that gives them the vitamins and minerals they need to stay well nourished. _____



1.c Crossword puzzle

Across clues

1. Helping a couple decide the number and spacing of children

5. Number of years a newborn baby can be expected to live

6. Water that has been used and is no longer clean

7. Statistics that measure the quality of life

9. To be able to produce more goods and services

10. A medical procedure that helps increase a person's resistance to certain diseases

11. Practices that help ensure cleanliness and good health

12. Services that help ensure the good health of a pregnant woman and her unborn child

Down clues

2. The number of babies who die before their first birthday

3. Disease transmitted by the anopheline mosquito

4. Where the standard of living for most people is low

8. _____ services are provided by the government to help improve the quality of life

2. Poster Exercises

2.a Understanding the map

1. Looking at the key to the right of the world map, what color indicates a high life expectancy? a low life expectancy?
2. On which continents do you find countries with a high life expectancy?
3. On which continents do you find countries with the lowest life expectancy?
4. What, if any, geographic pattern do you observe regarding the location of countries with high life expectancy? with low life expectancy?
5. What geographic and climatic characteristics of a country might tend to lower the life expectancy of its people?
6. Looking at the key to the right of the world map, what is the range in years from highest to lowest life expectancy?
7. Based on the map key, what is considered a high life expectancy? a low life expectancy?
8. How would you expect conditions to differ in countries with low life expectancy and countries with high life expectancy?
9. (a) Study the world map and the Data Table. Do industrial countries tend to have high or low life expectancies? What about developing countries? (b) How can you explain these tendencies?

2.b Understanding Chart 1

Note that the text of the charts is given in italics.

In 1984 infants and children accounted for a far greater proportion of deaths in developing countries than in industrial countries. Why are infants and children in developing countries at greater risk of dying? Drinking water is often impure, and unsanitary conditions are common. Pregnant women, nursing mothers, infants, and children may not get enough nutritious food. Family planning and other health and educational services are lacking. Governments and families often cannot afford adequate health care. Diarrheal and respiratory diseases, malaria, and malnutrition cause many deaths. And many children are not protected by immunization against diphtheria, measles, polio, tetanus, tuberculosis, and whooping cough.

The values for Chart 1 are given at the top of the next column.

	Percentage of deaths by age	
	0–4 years	*5+ years*
Industrial countries	2.3	97.7
Developing countries	26.8	73.2

1. How much more likely is a child or infant in a developing country to die than a child or infant in an industrial country?
2. List some of the reasons children and infants in developing countries are at greater risk of dying.
3. Look at your answer to question 2 and decide if any of the reasons you listed could be a major cause of death for children in industrial countries.
4. How many of these diseases are you familiar with: cholera, diphtheria, malaria, measles, polio, tuberculosis, typhoid, whooping cough? Do many children in industrial countries such as the United States and Canada die of these diseases? Why or why not? Are these diseases common in developing countries? Why or why not?
5. How do immunization programs help increase life expectancy among infants and children?

2.c Understanding Chart 2

Improved living conditions in developing countries have led to an increase in the number of infants surviving the first year of life. Despite this decrease in infant mortality, however, infants and children are still much more likely to die in developing countries than in industrial countries.

The values for Chart 2 are as follows:

	Number of deaths per 1,000 live births	
	1960	*1984*
Mali	194	176
Ethiopia	175	172
Bolivia	167	118
India	165	90
Kenya	137	91
China	132	36
Brazil	115	68
Mexico	93	51
Korea	78	28
Industrial countries	28	13

1. Explain the term "infant mortality."
2. List the nine countries on Chart 2. List the continent on which each country is located. Use the Data Table to list life expectancy at birth for each country. How would you classify or describe these countries? What relationship, if any, do you see between infant mortality and life expectancy in these countries?

3. Which two of the nine countries had the highest infant mortality rate in 1960? the lowest in 1960?

4. Which two of the nine countries had the highest infant mortality rate in 1984? the lowest in 1984?

5. How many of these nine countries have decreased their infant mortality rate since 1960? Which country had the greatest reduction in infant mortality between 1960 and 1984?

6. Why do you think infant mortality rates have decreased in all these countries?

2.d Understanding Chart 3

Life expectancy has gone up since 1960. The increase was greatest in low-income developing countries. These gains have come about through improvements in social services and economic growth in the developing countries. In 1900 life expectancy in the United States was 47.3 years, about the same as it was in the developing countries in 1960.

The values for Chart 3 are as follows:

	1960	*1984*
All developing countries	45	60
Low-income developing countries	41	60
Middle-income developing countries	50	61
Industrial countries	70	73
United States	70	76

1. Explain the term "life expectancy at birth."
2. What is a developing country?
3. What is a low-income developing country?
4. What is a middle-income developing country?
5. What is an industrial country?
6. Look at Chart 3. What trend do you see between 1960 and 1984 for life expectancy in all categories of countries?
7. What factors have contributed to this trend in life expectancy?
8. What conditions affecting life expectancy might you have found in the United States around 1900?

2.e True or false statements

Answer each statement True or False. Next to each statement identify the source of information that supports your answer by using the following designations: Chart 1, Chart 2, Chart 3, World Map.

_____ 1. Infant mortality rates in Mexico, Kenya, and India have not decreased since 1960.

_____ 2. In 1984, about 10 times fewer children died in industrial countries than in developing countries.

_____ 3. In 1960, people in the average developing country had a life expectancy slightly less than that for people in the United States in 1900.

_____ 4. Many children die because they do not have clean water to drink.

_____ 5. Life expectancy is highest in the countries closest to the equator.

_____ 6. Of the countries shown here, Mali and Ethiopia have reduced infant mortality the least since 1960.

_____ 7. Of the countries shown here, China had the highest infant mortality rate in 1984.

_____ 8. Most of the countries with low life expectancies are concentrated in Africa.

_____ 9. On the average, life expectancy has increased in all countries since 1960.

_____ 10. Of the countries shown here, Korea reduced its infant mortality rate the most between 1960 and 1984.

_____ 11. Since 1960, life expectancy has increased more in the industrial countries than in the developing countries.

_____ 12. Life expectancy tends to be higher in South America than in Africa.

_____ 13. Improving immunization programs would do little to reduce infant mortality in developing countries.

_____ 14. Reducing infant mortality has little or no affect on increasing life expectancy.

_____ 15. Between 1960 and 1984, life expectancy in low-income developing countries increased more than in middle-income developing countries.

3. Photograph Exercises

3.a Group activity

A piece of paper should be paper clipped to the back of each photograph to cover the text. The class is to be divided into six groups and each group given a photograph and a copy of the Data Table on the back cover. Note that the photographs are from actual development projects in different countries and that they represent the kinds of activities that help poorer countries improve the standard of living and the life expectancy of their people. Groups are to take five minutes to study their photographs, then they will tell the class what they think is going on in their pictures and how it will help increase life expectancy.

Note the names of the six activity sectors: *water, sanitation, family planning, nutrition, education, health care*. Groups are to explain which sector they think their picture represents. If students chose the "wrong" sector, they should understand that the development process is complex and that projects can involve many different but complementary activities.

Students are to uncover the text on the back of the picture. They are to take five minutes to read the text and prepare a report to the class that includes answers to these questions:

- Where was the picture taken?
- Where is the country located on a map and what continent is it on?
- What is the life expectancy in that country, and how does it compare with that of the United States?
- What is going on in the picture?
- What kind of project is it, what problems is it trying to solve, and how might it help to increase life expectancy?

3.b Class discussion

The class is to look at all the photographs. Students should understand that the photographs are of actual development projects in different countries and that they represent the kinds of activities that help poorer countries improve their standards of living and increase life expectancy. Students should identify the countries shown in the pictures and find each country on the map.

Students are to say how they think the activity in each picture is contributing to increased life expectancy. They may want to write down their ideas.

Students are to look at the list of sector activities: *water, sanitation, family planning, nutrition, education, health care*. They should review their ideas about what is going on in the pictures and match the sector activities with the photographs. Note that if students choose the "wrong" sector, they should understand that the development process is complex and that each project involves many different but complementary activities. Students may attach the sector activity label to the appropriate picture.

3.c Role playing

You work for the Ministry of Health in a developing country. You are on a committee that is preparing a list of recommendations designed to help increase life expectancy at birth. The recommendations are as follows:

1. Train village women as midwives and thus help reduce the death rate of newborn babies and their mothers.
2. Send health care workers to rural villages to teach residents how to clean their water using simple filtration and chemical purification procedures.
3. Educate teachers about effective personal hygiene and nutrition, so they can better educate students in both rural and urban schools.
4. Purchase and staff five mobile immunization units to visit rural villages.
5. Train and mobilize ten teams of family planning workers to offer classes to women in urban slums and rural villages.
6. Establish a team of women health workers to visit rural villages and teach local women about food storage, preparation, and nutrition.
7. Develop a training program for men and women to become health care workers.
8. Build two new hospitals, one in each of your country's major cities, and equip them with the latest medical technology.
9. Work with local leaders to provide all larger villages with water pumps, drainage ditches, and hygiene classes.
10. Provide free literacy classes to women in rural and urban areas.

All of the projects are important, but because the country is poor, there is enough money for only three projects. Which ones will you select, and what are your reasons for each choice? What sectors of activity do your choices fit into?

4. Data Table Exercises

4.a Completing a chart

Using the Data Table, fill in the column headed "1984." What trend do the data indicate?

Life expectancy at birth in 128 countries

Life expectancy at birth	*Number of countries* 1960	1984
Less than 50 years	63	___
50–59 years	21	___
60–69 years	28	___
70 years or more	14	___
Data not available	2	___
Total	128	128

4.b Comparing data and photographs

Choose one or two countries from each geographical group in the Data Table. Compare life expectancies for 1960 and 1984 within each country and among the geographical areas. What trends do you see? Using the six photographs as guidelines, discuss what you think has happened in these countries to account for these trends. On a piece of paper list six factors that help increase life expectancy at birth and why.

Data Table: Life Expectancy at Birth

(years)

Key	*Country*	*1960*	*1984*
	North and Central America		
i	Canada	71	76
m	Costa Rica	61	73
m	Cuba	63	75
m	Dominican Rep.	51	64
m	El Salvador	50	65
m	Guatemala	47	60
l	Haiti	44	55
m	Honduras	46	61
m	Jamaica	63	73
m	Mexico	57	66
m	Nicaragua	47	60
m	Panama	62	71
m	Trinidad & Tobago	64	69
i	United States	70	76
	South America		
m	Argentina	65	70
m	Bolivia	43	53
m	Brazil	55	64
m	Chile	56	70
m	Colombia	53	65
m	Ecuador	50	65
m	Paraguay	56	66
m	Peru	48	59
m	Uruguay	68	73
m	Venezuela	57	69
	Europe		
e	Albania	62	70
i	Austria	69	73
i	Belgium	70	75
e	Bulgaria	68	71
e	Czechoslovakia	70	70
i	Denmark	72	75
i	Finland	68	75
i	France	70	77
e	German Dem. Rep.	69	71
i	Germany, Fed. Rep.	69	75
m	Greece	68	75
e	Hungary	68	70
i	Ireland	69	73
i	Italy	69	77
i	Netherlands	73	77
i	Norway	73	77
e	Poland	67	71
m	Portugal	63	74
e	Romania	65	71
i	Spain	69	77
i	Sweden	73	77
i	Switzerland	71	77
m	Turkey	50	64
i	United Kingdom	71	74
e	USSR	68	67
m	Yugoslavia	62	69
	Middle East and North Africa		
m	Algeria	47	60
m	Egypt, Arab Rep.	46	60
m	Iran, Islamic Rep.	50	61
m	Iraq	48	60
m	Israel	71	75
m	Jordan	47	64
h	Kuwait	59	72
m	Lebanon	60	65[a]
h	Libya	47	59
m	Morocco	47	59
h	Oman	38	53
h	Saudi Arabia	43	62
m	Syrian Arab Rep.	50	63
m	Tunisia	48	62
h	United Arab Emirates	52	72
m	Yemen Arab Rep.	35	45
m	Yemen, People's Dem. Rep.	36	47
	Sub-Saharan Africa		
m	Angola	33	43
l	Benin	39	49
m	Botswana	—	58
l	Burkina Faso	37	45
l	Burundi	38	48
m	Cameroon	43	54
l	Central African Rep.	38	49
l	Chad	34	44
m	Congo, People's Rep.	48	57
m	Côte d'Ivoire	38	52
l	Ethiopia	36	44
l	Ghana	44	53
l	Guinea	32	38
l	Kenya	46	54
m	Lesotho	42	54
m	Liberia	44	50
l	Madagascar	37	52
l	Malawi	36	45
l	Mali	37	46
m	Mauritania	37	46
m	Mauritius	—	66
l	Mozambique	41	46
l	Niger	37	43
m	Nigeria	38	50
l	Rwanda	39	47
l	Senegal	37	46
l	Sierra Leone	30	38
l	Somalia	34	46
m	South Africa	53	54
l	Sudan	39	48
l	Tanzania	41	52
l	Togo	41	51
l	Uganda	43	51
l	Zaire	40	51
m	Zambia	39	52
m	Zimbabwe	49	57
	Asia and the Pacific		
l	Afghanistan	33	36[a]
i	Australia	71	76
l	Bangladesh	43	50
l	Bhutan	32	44
l	Burma	43	58
l	China	41	69
m	Hong Kong	65	76
l	India	42	56
m	Indonesia	41	55
i	Japan	67	77
l	Kampuchea, Dem.	42	—
m	Korea, Dem. Rep.	54	68
m	Korea, Rep.	54	68
l	Lao People's Dem. Rep.	40	45
m	Malaysia	54	69
m	Mongolia	52	63
l	Nepal	38	47
i	New Zealand	71	74
l	Pakistan	43	51
m	Papua New Guinea	40	52
m	Philippines	52	63
m	Singapore	64	72
l	Sri Lanka	62	70
m	Thailand	52	64
l	Viet Nam	43	65

—Not available.

a. Data are for 1983 rather than 1984.

Key: l = low-income developing country
m = middle-income developing country
i = industrial country
h = high-income oil-exporting country
e = East European country.

Name _____

Test

Part I. Multiple choice

Read each statement carefully and circle the correct response.

1. Most developing countries are found on the continents of
   A. Asia, South America, Australia
   B. Africa, North America, Europe
   C. South America, Africa, Asia
2. A country where the infant mortality rate is 12 is probably
   A. an industrial country
   B. a low-income developing country
   C. a middle-income developing country
3. Practices, including regular hand washing, that help ensure cleanliness and good health are called
   A. family planning
   B. primary health care
   C. hygiene
4. A major factor contributing to high infant mortality rates in developing countries is
   A. unclean water
   B. lack of hospitals and medical facilities near villages
   C. starvation brought on by drought
5. How much more likely is a child to die in the first year of life in a developing country than in an industrial country?
   A. 5 times B. 10 times C. 15 times
6. Between 1960 and 1984 the infant mortality rate in most countries
   A. increased
   B. decreased
   C. stayed about the same
7. Since 1960 the greatest gain in life expectancy has been in
   A. industrial countries
   B. developing countries
   C. neither, both industrial and developing countries have stabilized their rates
8. Life expectancy is directly affected by all the following activities except
   A. education and family planning
   B. health care and a supply of clean water
   C. farming and agricultural exports
9. Increasing the number of infants and children who are immunized will tend to
   A. increase the life expectancy rate
   B. decrease the infant mortality rate
   C. both of the above
10. Unsanitary conditions, poor nutrition for pregnant women, and too few health services are common reasons for high infant mortality in
    A. developing countries
    B. industrial countries
    C. both developing and industrial countries
11. Family planning services include instruction in all of the following except
    A. nutrition and food preparation
    B. religious practice and belief
    C. prenatal and postnatal care
12. On which continent would you expect to find the highest life expectancy?
    A. Europe B. Asia C. South America
13. A reduction in infant mortality contributes to
    A. a decline in the life expectancy rate
    B. a stabilizing of the life expectancy rate
    C. an increase in the life expectancy rate
14. Most countries with a lower life expectancy rate are located
    A. in temperate regions
    B. in polar regions
    C. in tropical and subtropical regions
15. The difference in the life expectancy of a person living in an industrial country and one living in a developing country is likely to be
    A. 5–10 years B. 10–20 years C. 20–30 years
16. The kampung project in Jakarta is a good example of
    A. an urban sanitation project
    B. a rural education project
    C. a family planning project
17. Development projects to help increase life expectancy tend to focus on women because
    A. men do not have time to attend classes
    B. men already know about health care and nutrition and now women must learn
    C. women care for the children and plan and cook the family meals
18. Better hygiene and an adequate supply of clean water will
    A. increase infant mortality and decrease life expectancy
    B. increase life expectancy and decrease infant mortality
    C. increase life expectancy and increase infant mortality

19. A country with a high life expectancy is apt to have
    A. a high infant mortality rate
    B. a low GNP per capita
    C. a high rate of literacy and school enrollment

20. In which of these countries would you expect infant mortality to be the lowest?
    A. Mexico B. India C. Japan

Part II. Vocabulary matching

Put the letter of the correct vocabulary word next to each definition. There are two more vocabulary words than needed.

a. developing country	g. growth monitoring
b. economic growth	h. infant mortality rate
c. nutrition education	i. sanitation
d. prenatal care	j. social indicators
e. primary health care	k. family planning
f. immunization	l. postnatal care

1. _____ Maintaining clean, hygienic conditions with facilities such as toilets, garbage disposal areas, and drainage ditches.

2. _____ Statistics that measure social conditions in industrial and developing countries.

3. _____ A country where most people have a low standard of living with few goods and services.

4. _____ Deciding in advance if and when to have children and how many children to have.

5. _____ A way to detect undernourishment by weighing infants and children each month.

6. _____ Health services designed to be affordable by poor people and to prevent rather than cure diseases.

7. _____ The process by which a country increases its ability to produce goods and services.

8. _____ Health services for a pregnant woman and her unborn child.

9. _____ The number of infants, out of every 1,000 live births, who die before reaching their first birthday.

10. _____ Innoculation given to people to protect them from certain diseases.

Part III. Essay questions

Select one essay question and answer on a separate sheet of paper.

1. Discuss three development activities that could contribute to increased life expectancy in developing countries. Explain how each activity could also contribute to economic growth.

2. Compare and contrast living conditions that affect life expectancy in developing and industrial countries. Discuss the effects these conditions have on the level of economic development.

Answers

1.b Matching definitions

1. industrial country
2. low-income developing country
3. middle-income developing country
4. growth monitoring
5. measles
6. infant mortality rate
7. nutrition education
8. diphtheria, whooping cough (or pertussis), and tetanus
9. sanitation
10. food supplementation

2.a Understanding the map

1. dark green, yellow.
2. North America, Europe, Australia, Asia—Japan.
3. Africa, Asia.
4. High life expectancies tend to fall in temperate climatic zones; low life expectancies tend to fall in tropical or subtropical climatic zones.
5. isolation because of deserts, mountains, etc.; year-round hot climate, so germs and parasites grow and multiply uninterrupted.
6. less than 50 to more than 70 years; a span of 20 or more years.
7. 70 years or more; 50 years or less.
8. Answers will vary but should include availability of clean water, primary education, health care, family planning services, and a variety of nutritious foods—many of the conditions people in industrial countries may take for granted.
9. (a) high; low (b) Answers will vary but should indicate a relationship between a country's economic progress—its ability to produce and distribute fairly both goods and services—and its ability to meet the basic human needs of its people, including health care, education, housing, and employment.

2.b Understanding Chart 1

1. 10 times more likely.
2. impure drinking water; unsanitary conditions; poor nutrition for pregnant women, nursing women, and children; no money for good health programs; lack of immunization for children; prevalence of many diseases that could be controlled.
3. In most cases these are not the major causes of death in industrial countries; for example, in the United States accidents rank first.
4. Most of these diseases will not be familiar because they are not life-threatening in industrial countries where medical science and technology have eradicated or controlled them.
5. They reduce the likelihood that children will contract or die from a disease.

2.c Understanding Chart 2

1. The number of babies who die before their first birthday. The number is calculated per 1,000 live births. For example, 1984 data show that in Mali the infant mortality rate was 176 deaths per 1,000 live births, whereas in the United states it was 11 deaths per 1,000 live births.

2.

Mali	Africa	46 years
Ethiopia	Africa	44 years
Bolivia	South America	53 years
India	Asia	56 years
Kenya	Africa	54 years
China	Asia	69 years
Brazil	South America	64 years
Mexico	North America	66 years
Korea	Asia	68 years

All are developing countries. The majority are located in Africa, Asia, or South America. In general, if infant mortality is high, life expectancy tends to be low.

3. highest: Mali, Ethiopia; lowest: Korea, Mexico.
4. highest: Mali, Ethiopia; lowest: Korea, China.
5. all of them; China.
6. better health conditions because of improvements in health care, sanitation, water quality, education, nutrition, and family planning.

2.d Understanding Chart 3

1. the average number of years newborn babies can be expected to live if health conditions remain the same.
2. a country where most people have a low standard of living with few goods and services.
3. the poorest of the poor, where most people cannot meet their basic needs.
4. a country that has a somewhat higher standard of living than a low-income developing country and that is able to participate more in the world economy.
5. a country where most people have a high standard of living and the economy is primarily industrial.
6. All have increased.
7. better health conditions because of improvements in health care, sanitation, water quality, education, nutrition, and family planning.
8. impure water, unsanitary conditions, lack of immunization, less knowledge of disease and medicine, fewer hospitals, clinics, and trained medical personnel.

2.e True or false statements

1. F/Chart 2
2. T/Chart 1
3. T/Chart 3
4. T/Chart 1
5. F/World Map
6. T/Chart 2
7. F/Chart 2
8. T/World Map
9. T/Chart 3
10. F/Chart 2
11. F/Chart 3
12. T/World Map
13. F/Chart 1
14. F/Chart 1
15. T/Chart 3

3.c Role playing

Students' opinions will vary.

1. health care
2. water
3. education
4. health care
5. family planning
6. nutrition
7. education
8. health care
9. sanitation
10. education

4.a Completing a chart

less than 50 years: 24
50–59 years: 29
60–69 years: 33
70 years or more: 41
data not available: 1

Life expectancy has increased dramatically over the past two decades.

4.b Comparing data and photographs

Answers may vary but should include availability of clean water, primary education, health care, family planning services, and nutritious food.

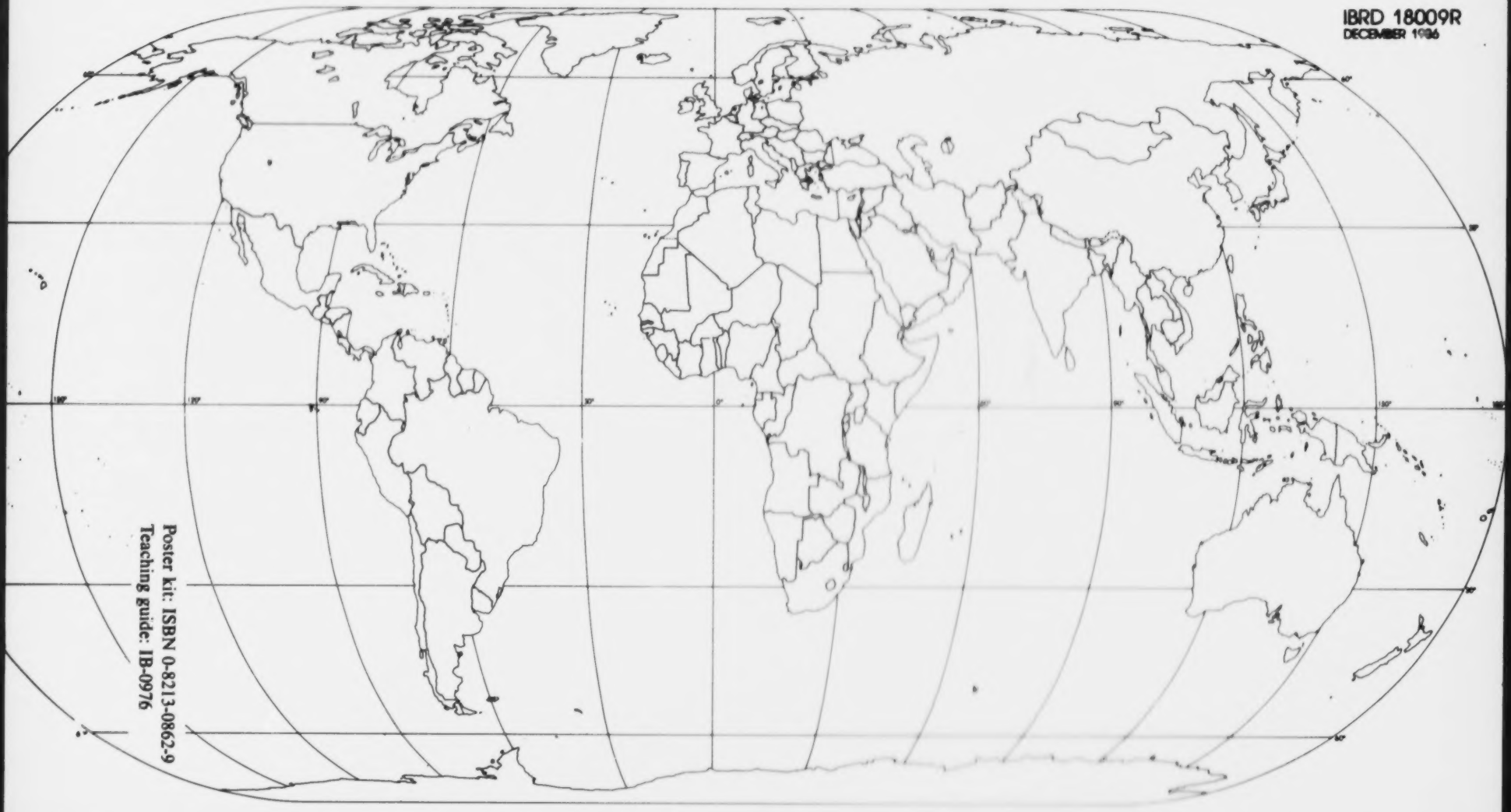
Test

Part I. Multiple choice

1. C
2. A
3. C
4. A
5. B
6. B
7. B
8. C
9. C
10. A
11. B
12. A
13. C
14. C
15. C
16. A
17. C
18. B
19. C
20. C

Part II. Vocabulary matching

1. i
2. j
3. a
4. k
5. g
6. e
7. b
8. d
9. h
10. f



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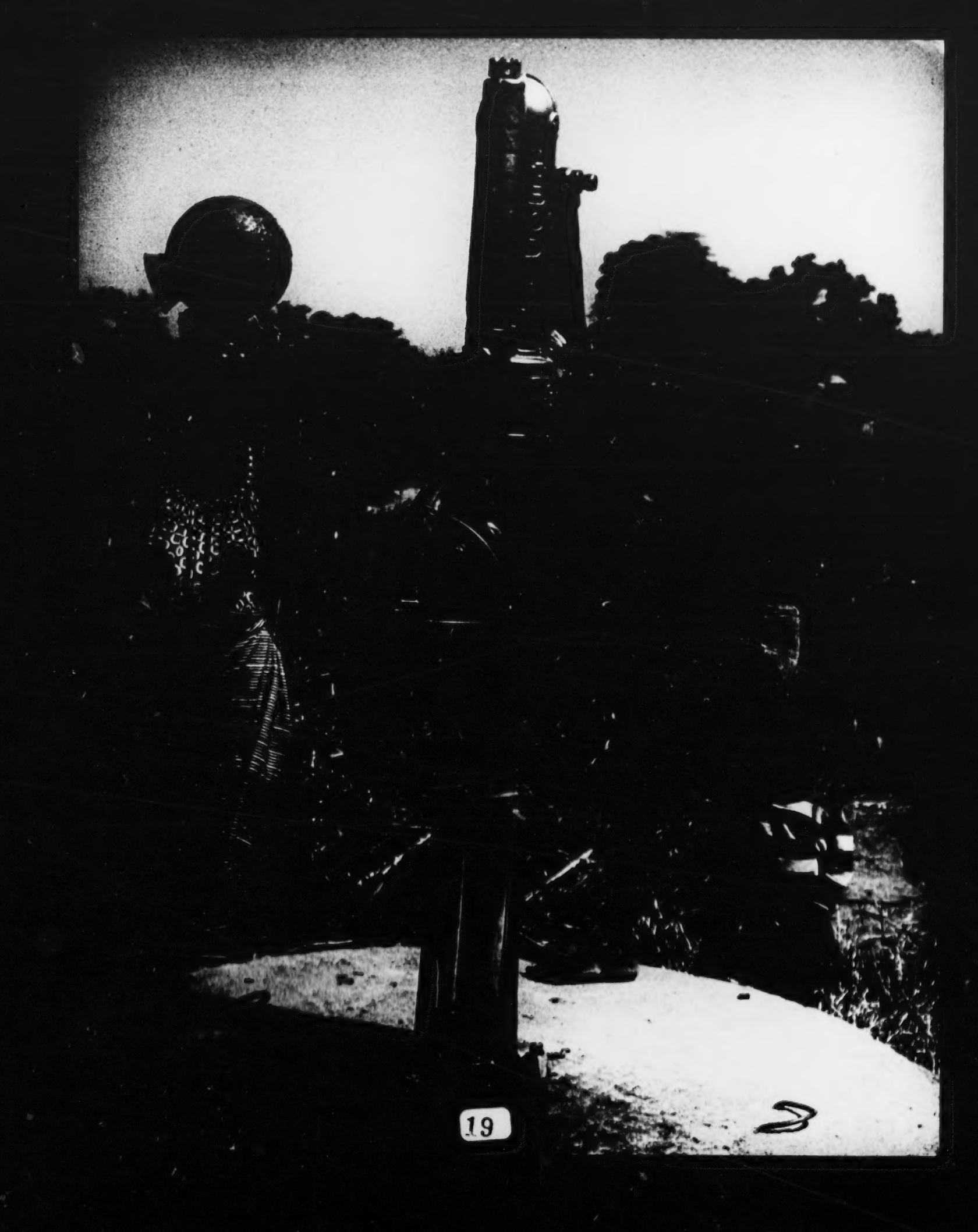

1. WATER

Getting clean water from a new community water pump in a village southeast of Ouagadougou, capital of Burkina Faso

Rural Development Project

An adequate and reliable supply of clean water is critical for good health. But many people in developing countries have little or no access to water for washing, bathing, drinking, and cooking. Women and children, who usually have to fetch water for their families, may spend as much as four hours a day hauling water from the nearest source. Pumps like the one in the picture can make their lives better by bringing an adequate supply of water into areas that badly need it.

Having a good source of water is not enough, however. People must also learn how to use water for proper hygiene. Both adults and children must learn the importance of washing their hands frequently with soap. Kitchen utensils and other household articles also need to be washed regularly with soap. More people get sick from failing to follow these basic rules of hygiene than from drinking contaminated water. In fact, of the nearly 15 million children under age five who die each year, more than 3 million die from illness associated with improper hygiene.

Water storage and sanitation are also important for good health. People must learn to keep their household water clean by transporting and storing it in clean, covered containers. And people must have access to showers and safe ways to dispose of garbage, sewage, and wastewater.

Rural and urban development projects are doing much to improve the situation. They help make sure that people have enough water, and they set up health care centers with classes in hygiene, child care, and nutrition. They also construct sanitation facilities, storage buildings, and better houses.

Pronunciation: Ouagadougou (Wah-gah-*doo*-goo)

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2. SANITATION

Before and after kampung improvement in Jakarta, Indonesia

Urban Development Project

The population of Jakarta, Indonesia's capital, is growing rapidly as people move to the city to find jobs and a better life for themselves and their families. Between 1960 and 1985 the number of people living in Jakarta increased from 2.9 million to almost 7.9 million. Most of these people ended up in kampungs, poor urban communities that are often crowded and unhealthy. Many kampungs lack water, electricity, and sanitation facilities to handle garbage and human waste. Nearly all paths and alleys in the kampung are unpaved and have no drainage ditches, so they are dusty in dry weather and flooded in wet. There are few schools or health clinics.

To help improve basic living standards in the kampungs, the Indonesian government designed the Jakarta Urban Development Project. The purpose of the project is to build public water taps, toilets, and showers; dig drainage canals and lay water pipes; set up garbage collection areas; build health clinics and primary schools; train kampung people as clinic workers; provide classes on family planning, sanitation, hygiene, and nutrition; and pave roads and footpaths.

This picture shows a kampung in Jakarta before and after such improvements were made. Although there have been many problems, the project has been successful, and the health of the people has begun to improve. In addition, the project has created many jobs for residents and thus has helped increase their incomes and standard of living. Between 1969 and 1984, 619 kampungs were improved, covering 51 square miles and affecting 4.9 million people. Much progress has been made, but much remains to be done.

The World Bank, other development institutions, and various countries loaned Indonesia money for the project, but most of the funds came from the Indonesian government itself. Similar projects are under way in such places as Manila, Philippines; Bangkok, Thailand; Tunis, Tunisia; Yaoundé, Cameroon; Lima, Peru; and Recife, Brazil.

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3. HEALTH CARE

Immunizing children at a health clinic near La Paz, Bolivia

Primary Health Care Project

Primary health care means giving people—especially women—the support they need to help keep themselves and their families healthy.

The mother in this picture is the key to the good health of her family. It is she who must nourish herself well during pregnancy, understand the birthing process and how to make it safer, plan the number and spacing of her children, prepare healthy meals for her family, teach her children to wash their hands frequently with soap, ensure that her household is clean and sanitary, know the importance of immunizing her children, and learn how to treat common but often deadly diseases. Above all, she must understand that her children do not have to die and that she herself can help them live longer, healthier lives.

The child in the picture is fortunate—he has survived to be almost three years old; two sisters and a brother before him did not. Yet the lives of millions of children could be saved each year simply by making sure that they are immunized against measles and other childhood diseases (only one in five children in developing countries is immunized) and also by making sure they do not die of dehydration when they are sick with diarrhea.

Primary health care projects are designed to meet the needs of mothers such as the one in the picture—and millions of other people as well—by providing

- health care centers that are convenient and well run (many women must work from 12 to 16 hours every day and have no time to spare)
- health care specialists who visit villages to train local workers and teach about hygiene, nutrition, child care, family planning, and sanitation
- critical services including immunization programs, oral rehydration therapy, growth monitoring, food supplement programs, malaria treatment, sanitation, and water supply.

As primary health care improves and reaches more people in rural and urban areas of developing countries, life expectancy will increase and infant mortality will decrease.

© PAHO photo by Dana Downie

Plan Your Family -
Plan Your Nation
KEEP THE BALANCE

4. FAMILY PLANNING

Learning about family planning at a hospital in Machakos, Kenya

Population Project

This health educator is teaching a class on family planning. She is giving these women information that will help them decide whether to have children and, if so, when and how many. When women are able to plan their families, they are better able to care for their children and thus to ensure their children's health and well-being. Also, parents who feel that most of their children are likely to survive tend to have fewer children.

This family planning class is part of a larger population project carried out by the government of Kenya with help from the World Bank and other organizations. The purpose of the project is to provide communities with health care services that focus on both treatment of health problems and education to prevent them. These services include family planning, prenatal and postnatal care, nutrition, preventive medicine, and home visits by trained workers. Classes such as the one in the picture are popular, and more than 200 women from the area attend them daily.

Although Kenya is a low-income developing country, its economy is growing well at an annual rate of 2.1 percent. At the same time, however, its population of 20 million people is growing at an annual rate of 4 percent, one of the world's highest. Therefore, the economic gains that are made tend to be offset by the increasing population. If the people of Kenya are to improve their standard of living, their country must increase its economic growth rate and reduce its population growth rate.

Rapid population growth implies, among other problems, more unemployment, lower standards of living, more movement of people into towns and cities that do not have the facilities to support them, and greater demand for social services.

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5. NUTRITION

A nutrition class in Dacca, Bangladesh

Population Project

In 1984 the population of Bangladesh was 98.1 million and was growing at 2.5 percent a year, the average life expectancy at birth was 50 years, and the infant mortality rate was 124 (124 infants out of every 1,000 died before their first birthday). Because of the large population, low life expectancy, and high infant mortality, the government of Bangladesh realized the need to increase its social services and help improve the quality of life of its people.

In the picture a health care specialist is teaching a class on nutrition to a group of women who have or plan to have families. Such nutrition classes focus on teaching about foods that promote growth and good health. Most of these classes are designed for women because it is they who will bear and raise children and who are most often responsible for growing, buying, and preparing their families' food. This class is being held in a community health clinic in Dacca, the capital of Bangladesh. The teacher is showing how important good nutrition is for babies and children if they are to become healthy, productive adults. The pictures on the walls of the classroom show how good and bad nutrition affect children now and when they are adults.

This nutrition class is part of a larger population project designed and carried out by the government of Bangladesh with the help of other governments and the World Bank. The project includes setting up clinics, training health workers, offering family planning services, and visiting homes in poor areas to give medical care.

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6. EDUCATION

A literacy class in a rural community near Addis Ababa, Ethiopia

Agricultural Project

The young woman in this picture is learning to read and write Amharic, the official language of her country. She is learning the alphabet and practicing the vowel sounds. Most of the students in the class are young women. Until recently many girls did not go to school; instead they stayed home to help their mothers grow crops, prepare food, gather firewood, carry water, and tend younger children.

This literacy class is part of a larger agricultural project designed to increase the knowledge and skills of villagers who rely on farming for their well-being. The government of Ethiopia developed this project because it realized that all people—men, women, and children—need at least a basic education to lead fuller, more productive lives.

A basic education is especially important for women because they greatly influence the quality of life for their families. They are directly responsible for the health and well-being of their children, both before and after birth; they decide what food to grow or buy and how to cook and store it; and they control the spending of what household money may be available. In addition, women who have had even a little education are much more likely to practice family planning and to raise healthier children.

Goals of this agricultural project also include offering classes on child care, vegetable gardening, and meal planning and cooking; building roads to get produce to market; and improving harvest techniques.

The table below compares Ethiopia and the United States by looking at information on population and education. Education is one factor that affects a country's standard of living. Health conditions and distribution of wealth, for example, are other factors.

	Ethiopia	*United States*
Population Data		
Life expectancy at birth	44 years	76 years
Infant mortality rate	172 deaths per 1,000 births	25 deaths per 1,000 births
Population	42.2 million	237 million
School Enrollment Data		
Primary School	58 percent of boys 34 percent of girls	99 percent of boys 99 percent of girls
Secondary school	13 percent of children	94 percent of children
Higher education	1 percent of youth	28 percent of youth

Sources: Education data for the United States are from the U.S. Department of Education for fall 1985. All other data are from the World Bank, *World Development Report 1986* (New York: Oxford University Press, 1986).

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